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What is claimed is:

1. An image data compressing apparatus comprising:

an image data compressor for compressing image data input thereto at first and second compression rates to produce first and second compressed data, respectively;

an approximate-expression selector having an approximate-expression table including a plurality of approximate expressions corresponding to a plurality of sample data sizes, respectively, said approximate-expression selector selecting an approximate expression from said plurality of approximate expressions, said first approximate expression corresponding to a first sample data size nearest a data size of said first compressed data among said plurality of sample data sizes, each of said plurality of approximate expressions indicating a change of a data size in response to a compression rate; and

a compression rate determining unit for determining said second compression rate based on said selected approximate expression.

- 2. The image data compressing apparatus according to claim 1, wherein each of said plurality of approximate expressions is a polynomial.
- 3. The image data compressing apparatus according to claim 2, wherein said approximate-expression table includes coefficients in said polynomials.
- 4. The image data compressing apparatus according to claim 1, wherein at least one of said plurality of sample data sizes is not greater than a target data size.

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5. The image data compressing apparatus according to claim 1, further comprising

a memory for storing said input image data,

wherein said image data compressor compresses a portion of said image data stored in said memory at said first compression rate to produce said first compressed data.

- 6. The image data compressing apparatus according to claim 7, wherein said portion of said image data stored in said memory comprises a plurality of portions of said image data.
 - 7. A method of compressing image data, comprising the steps of:

compressing image data at a first compression rate to produce compressed data;

selecting a first approximate expression from a plurality of approximate expressions, the first approximate expression corresponding to a first sample data size nearest a data size of the compressed data among the plurality of sample data sizes;

determining a second compression rate based on the first approximate expression; and

compressing the image data at the second compression rate.

- 8. The method according to claim 7, wherein each of the plurality of approximate expression is a polynomial.
- 9. The method according to claim 7, wherein at least one of the plurality of sample data size is not greater than a target data size.

10. The method according to claim 9, wherein said step of compressing the image data includes the sub step of compressing a portion of the image data at the first compression rate.

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15. The method according to claim 14, wherein the portion of the image data includes a plurality of portions of the image data.